DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-016460 Address: 333 Burma Road **Date Inspected:** 25-Aug-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Li Yang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG Segment**

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 9CW/9DW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SP657-001-034, Side Plate I-rib splice. The welder is identified as #041713 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-345-SMAW-3G (3F)-FCM-repair, UT repair for WR14654.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SP657-001-035, Side Plate I-rib splice. The welder is identified as #041713 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-345-SMAW-3G (3F)-FCM-repair, UT repair for WR14653.

Segment 9DW/9EW

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This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as DP687-001-019, Deck Plate I-rib splice. The welder is identified as #044551 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-485-SMAW-3G (3F)-FCM-repair, UT repair for WR14592.

Segment 9DW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as SSD29-PP79.5-002, Angle brace. The welder is identified as #205098 and was observed welding in the 2F (horizontal), 3F (vertical) and 4F (overhead) positions using approved Welding Procedure Specification WPS-B-P-2112, WPS-B-P-2113 and WPS-B-P-2114.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as SSD29-PP79.5-001, Angle brace. The welder is identified as #205098 and was observed welding in the 2F (horizontal), 3F (vertical) and 4F (overhead) positions using approved Welding Procedure Specification WPS-B-P-2112, WPS-B-P-2113 and WPS-B-P-2114.

Segment 9DE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as OBE9-017, 018, Arced Plate at panel point 76. The welder is identified as #045246 and was observed welding in the 3F (vertical) position using approved Welding Procedure Specification WPS-B-P-2113-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as OBE9-019, 020, Arced Plate at panel point 76. The welder is identified as #045246 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-P-2114-TC-U4b-FCM-1.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspectors are identified as Wang Li Yang and Zhu Yuan Yuan. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Segment 9DW

This QA Inspector observed match drilling of Side Plate and Bottom Plate WT stiffener flange for bolted splice plate connection.

Segment 10CW

This QA Inspector observed beveling of the Side Plate with the use of a mechanical guided torch, counter weight side at 10BW/10CW connection.

Segment 10CE

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This QA Inspector observed Segment 10CE was placed in the trial assembly line up.

QA Verification

BAY 11 - Bolt Testing Room

This QA Inspector observed ZPMC personnel performing Rotational Capacity testing and Pre-installation verification of required torque for A325 High Strength Bolt assemblies with a Skidmore-Wilhelm Model: MS, serial number: 15866 (calibration expiration date 4/29/11) and torque wrench identified as #2 (calibration expiration date 10/12/10) on the following bolts:

34" x 2" Lot # DHG60631

5 bolt assemblies were tested

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Hernandez,Dan	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer